

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Sherry Hutcheson United Phosphorus, Inc. 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406

DEC 1 2 2013

Subject:

T-Bird 4.5L

EPA Reg. No. 70506-251

EPA Decision Number: 481113

Your product labeling submitted on July 1, 2013 for adding new application rates and

spray interval, and resubmission dated December 6, 2013

Dear Ms. Hutcheson:

The label referred to above, submitted in connection with registration under section 3 of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable.

One copy of the label stamped "Accepted" is enclosed for your records. Please submit one copy of the final printed label before the product is released for shipment. If you have any questions, please contact Marcel Howard by phone at (703)305-6784 or via email at Howard.Marcel@epa.gov.

Shaja B. Joyner

Product Manager (20)

Fungicide Branch

Registration Division

Enclosure: Stamped "Accepted" product label

T-Bird 4.5L Draft Label Label Amendment – clean Revision 3

GROUP 1 PUNGICIDE

# T-Bird® 4.5L

(Additional Alternate Brand Name: Fungo® Flo Fungicide)

Systemic Turf and Ornamental Fungicide

Controls a broad spectrum of diseases in bedding, flowering, herbaceous and tropical foliage plants, shrubs, trees, flowers, and container grown woody shrubs and trees as well as turf grasses.

ACTIVE INGREDIENT:	
Thiophanate-methyl (dimethyl [(1,2-phenylene)-	
(iminocarbonothioyl)] bis [carbamate])*	
TOTAL	100.0%
* A loo lenoven as dimothy! 4	,4-o-phenylenebis [3-thioallophanate]
	ve Ingredient per Gallon
	REACH OF CHILDREN
	AUTION
	TAID
If Inhaled:	Move person to fresh air.
	If person is not breathing, call 911 or
	an ambulance, then give artificial
	respiration, preferably by mouth-to-
	mouth if possible.
	Call a poison control center or doctor
	for further treatment advice.
If on Skin or Clothing:	Take of contaminated clothing.
	Rinse skin immediately with plenty of
	water for 15-20 minutes
	Call a poison control center or doctor
	for treatment advice.
Have the product container or label with you who	en calling a poison control center or doctor, or
going for treatment. For medical emergency, call	
1-866-673-6671	
FOR CHEMICAL EMERGENCY	Spill, leak, fire, exposure, or accident,
	C 1-800-424-9300.
Net Conte	ents: Gallons
EPA Reg. No 70506-251	EPA Est. No.

United Phosphorus, Inc. 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406 1-800-438-6071

ACCEPTED
DEC 1 2 2013

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg No. 12112 2013

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, polyvinyl chloride (PVC)  $\geq 14$  mils, or Viton  $\geq 14$  mils. If you want more options, follow the instructions for Category C on an EPA chemical-resistance category selection chart.

#### Handlers mixing, loading and applying the product as a dip must wear:

- · Coveralls over long sleeved shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant footwear plus socks,
- A chemical-resistant apron.

# All other mixers and loaders and applicators must wear:

- · Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves for all mixers and loaders and for applicators using hand held equipment, and
- Chemical-resistant apron for mixers, loaders and other handlers exposed to the concentrate.

#### **USER SAFETY REQUIREMENTS**

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### **ENGINEERING CONTROL STATEMENT**

When handlers use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **USER SAFETY RECOMMENDATIONS**

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water.

# **DIRECTIONS FOR USE**

# SHAKE WELL BEFORE USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Not for homeowner use. For use only by certified applicators or those under their immediate supervision. Do not apply with fixed wing or rotary aircraft. Not for use on turf being grown for sale or other commercial use as sod. Do not apply to home orchards/backyard fruit trees after fruit set.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

# AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted- entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry level (REI) of 12 hours.

**Exemption:** If the product is applied by drenching, the WPS, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under Worker Protection Standard and that involves contact with anything that has been treated such as plants, soil, or water, is:

- Coveralls over long sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear made of any waterproof material, plus socks
- Chemical-resistant headgear for overhead exposures

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. DO NOT enter or allow others to enter treated areas without protective clothing until spray has dried.

#### PRODUCT INFORMATION

T-Bird 4.5L is a broad spectrum fungicide exhibiting preventative, curative and systemic properties. T-Bird 4.5L is useful on a wide variety of turf and ornamental disease problems.

Apply T-Bird 4.5L with ground equipment only, using sufficient volume of spray to provide thorough and uniform coverage. Add required amount of T-Bird 4.5L to partially filled tank agitated by mechanical or hydraulic means and then add remaining required amount of water. Continuous agitation is required to keep the material in suspension.

Do not tank mix with copper-containing materials or with highly alkaline pesticides, such as Bordeaux mixture or lime sulfur. No claim of compatibility with other pesticides is implied.

Use the higher rates under conditions of severe disease pressure. Also, see local State Extension Service recommendations for application schedules.

Chemigation instructions follow Directions for Use. Do not apply through any irrigation system unless these instructions are followed.

**IMPORTANT:** If, after using T-Bird 4.5L as recommended, treatment is not effective, a tolerant strain of fungi may be present. Consult your local United Phosphorus, Inc. representative, your

6/16

T-Bird 4.5L Draft Label Label Amendment – clean Revision 3 December 12, 2013

State Agricultural Experiment Station, or your State Agricultural Extension Service for advice on the prompt use of some other suitable fungicide.

#### **TURF**

For use on all fine turf applications such as industrial lawns, athletic fields, home lawns (by professional applicators), cemeteries, golf course greens, tees, and fairways of all cool season and warm season grasses such as but not limited to Bentgrasses, Blue Grasses, Bermudagrasses, Fescues, Ryegrasses, St. Augustine grasses and Zoysiagrasses or their mixtures.

Not for use on turf being grown for sale or other commercial uses, such as sod.

T-Bird 4.5L is not phytotoxic to any of the above mentioned grasses when used in accordance with the label. T-Bird 4.5L is to be used for the prevention and control of the below mentioned diseases (provides both curative and protective action).

Apply T-Bird 4.5L uniformly over the area to be treated with a properly calibrated power sprayer. Apply labeled amounts in sufficient water to obtain thorough coverage, usually 1 ½ to 2 ½ gallons of finished spray per 1,000 sq. ft. of turf area. Apply after mowing and avoid mowing 12 hours after application.

When treating golf greens, always treat aprons and approaches. Use the highest labeled rate under conditions of severe disease pressure. The minimum retreatment interval for turf applications is 14 days.

Do not graze animals on treated turf. Do not feed clippings to livestock or poultry.

T-Bird 4.5L Maximum Application Rates Table

Site	Maximum Individual Application Rate per 1,000 Square Feet	Maximum Seasonal Total of T-Bird per 1,000 Square Feet
Residential / Public areas (such as home lawns, parks, athletic fields, schools, day care centers)	1.75 fl. oz./1,000 Sq. Ft.	7 fl. oz./1000 Sq. Ft.
Golf Course Greens / Tees / Aprons	5.30 fl. oz./1,000 Sq. Ft.	14.25 fl. oz./1,000 Sq. Ft.
Golf Course Fairways	3.50 fl. oz./1,000 Sq. Ft.	3.50 fl. oz./1,000 Sq. Ft.
Florida Golf Course Fairways Overseeded	1.75 fl. oz./1,000 Sq. Ft.	1.75 fl. oz./1,000 Sq. Ft.

		December 12, 2013
DISEASE	RATE OF T-BIRD 4.5L (fl. oz./1,000 sq. ft)	APPLICATION INSTRUCTIONS
Anthracnose Collettricum graminicola	$1.75 - 3.50 \text{ fl oz}$ $(3.50 - 5.30)^{\dagger}$	Apply when disease first appears.  Spray should dry on leaf surfaces with no watering in.  Continue at 14 day intervals through the season or as needed.
Asochyta Leaf Blight Ascochyta spp. Dollar Spot Sclerotinia homoeocarpa, Moellerodiscus spp., Lanzia spp. Copper Spot Gloeocercospora sorghi Brown Patch and Zoysia Patch Rhizoctonia solani Fusarium Patch Fusarium nivale Red Thread Corticium fuciforme Laetisaria fusiformis	1.75 – 3.50 fl oz	Apply when disease first appears.  Spray should dry on leaf surfaces with no watering in. Continue at 14 day intervals through the season or as needed.
Pink Snow Mold  Microdochium nivale	1.75 – 3.50 fl oz	Apply only to areas where snow cover is not present the entire winter.  Apply mid to late November before turf has gone dormant. For optimum results, lightly water first application into the root zone and use a spreadersticker. A second spray application should dry on leaf surfaces with no watering in. Continue at 14 day intervals through the season or as needed.
Gray Leaf Spot Pyricularia grisea	3.50 – 5.30 fl oz	Apply when conditions are favorable for disease development. Spray should dry on leaf surfaces with no watering in. Continue at 14 day intervals.
Cool Season Brown Patch Rhizoctonia cerealis Fusarium Blight Fusarium roseum Fusarium spp.	3.50 – 5.30 fl oz	Make 2 applications at 14 day intervals. Begin applications when disease first appears.

		December 12, 2013
DISEASE	RATE OF T-BIRD 4.5L	APPLICATION
Negratic Ping Snot	(fl. oz./1,000 sq. ft)	INSTRUCTIONS
Necrotic Ring Spot  Leptosphaeria korrae  Dead Spot  Leptosphaeria korrae		
Summer Patch  Magnaporthe poae	3.50 – 5.30 fl oz	Make 3 applications in early May at 21 day intervals for preventative treatment. Water into the root zone by irrigating with one inch of water immediately after application. For suppression, make 2 applications at 14 day intervals, beginning applications when disease first appears.
Stripe Smut  Ustilago striiformis	3.50-5.3fl oz	Make two applications at 14 day intervals. Begin applications when disease first appears, either in the spring or fall.  Water into the root zone by irrigating with one inch of water immediately after application.
Bermuda Decline  Gaeumannomyces graminis var. graminis Take All Patch Gaeumannomyces graminis var. avenae	3.50 – 5.30 fl oz	Make applications when disease first appears or in midsummer.  Make applications at 14-day intervals. Use higher rates under severe disease pressure.  Water into the root zone by irrigating with one inch of water immediately after application.
Coprinus Snow Mold Coprinus psychromobidus	3.50 – 5.30 fl oz	Make 2 applications at 21-day intervals beginning in late fall through early winter.  Make the last application just before to permanent snow cover.
Leaf Spot Dreschler spp. Leaf Crown and Root Diseases Bipolaris, Curvularia, Exserohilum Rusts	3.50- 5.30 fl oz	Apply when disease first appears; repeat applications at 14 day intervals as needed. Make rotations and/or tank mix combinations with products containing the active ingredient chlorothalonil, such

		December 12, 2013
DISEASE	RATE OF T-BIRD 4.5L (fl. oz./1,000 sq. ft)	APPLICATION INSTRUCTIONS
Puccinia spp., Uromyces spp.		as Phoenix Pegasus <sup>TM</sup> brand products.
Bentgrass Dead Spot Ophiosphaerella	3.50 – 5.30 fl oz	Begin applications in early summer to prevent bentgrass dead spot and at 14 day intervals as needed. Check with local extension agency.

<sup>&</sup>lt;sup>†</sup> Use 3.50 – 5.30 fl. oz rate for curative response to Basal Stem Anthracnose.

Observe the maximum individual application rates and maximal seasonal application limits in the T-Bird 4.5L Maximum Application Rates Table.

# ORNAMENTALS (INTERIORSCAPE, GREENHOUSE, NURSERY, LANDSCAPE)

T-Bird 4.5L is a broad spectrum systemic fungicide which controls various diseases in ornamental plants grown or maintained under a range of conditions.

Apply T-Bird 4.5L 14-21 days before disease appears, or at the first sign of disease. Spray intervals range from 7-14 days with 7 day interval when conditions for disease development are favorable and 14 days for preventative treatment. For foliage that is difficult to wet, add an appropriate surfactant to the spray tank to increase product efficiency. Use T-Bird 4.5L to control listed disease on ornamental fruit and nut trees.

Use this product to control listed diseases on fruit and nut trees. Do not use fruit, nuts or sap from trees treated with T-Bird 4.5L for food or feed purposes.

#### **Phytotoxicity Precautions:**

T-Bird 4.5L has been determined to be safe for use on the plant types listed in these directions for use based on cumulative data derived from research product trials and field use. As all species and cultivars have not been tested, a trial application should be performed in order to make an application to a plant type not labeled but found on a similar use site, and for the disease that is listed on the label. To conduct a trail application, apply at least two applications to at least 25 trial plants at the highest concentration, 7 days apart. Evaluate 7 days after the last application before initiating full-scale application. Do not use T-Bird 4.5L on Swedish Ivy (Nephrolepsis exaltat), Boston Fern (Plectranthus australis), or Easter Cactus (Hatiora gaertneri).

Use of Adjuvants: Use of a compatible spreader/sticker is suggested when rainfall and/or overhead irrigation is used. Use a compatible wetting agent when wetting of foliage is difficult. Always follow **Phytotoxicity Precautions** within this section of the label.

PLANT TYPES	EXAMPLES	
Herbaceous Ornamentals	Ageratum, Begonia, Canna, Coleus, Dahlia	
	Dusty Miller, Foxglove, Fuchsia, Geranium	
	Impatiens, Lavender, Marigold, Pansy, Petunia	
	Pinks, Primrose, Salvia, Statice, Strawflower,	
	Tickseed, Verbena	
Flowering	Chrysanthemum, Hydrangea, Hollyhock, Iris,	
	Lily, Poinsettia	
Tropical Foliage	Dieffenbachia, Dracaena, English Ivy,	
	Philodendron, Pothos	
Woody Ornamentals	Azalea, Hibiscus, Holly, Ligustrum,	
	Rhododendron, Rose, Pyracantha	
Evergreen trees and Shrubs	Douglas Fir, Fir, Larch Pine, Spruce	
Deciduous Trees*	Ash, London Plane, Maple, Oak, Sycamore,	
	Walnut	
Flowering Trees*	Cherry, Crabapple, Hawthorn, Mountain Ash,	
	Pear	
*Do not use fruit, nuts or sap from trees treated with T-Bird 4.5L for food or feed purposes.		

#### **FOLIAR SPRAY**

#### SHAKE WELL BEFORE USE.

# HYDRAULIC APPLICATION

Mixing instructions: Add required amount of T-Bird 4.5L to partially filled tank agitated by mechanical or hydraulic means and then add remaining required amount of water. Maintain continuous agitation to keep the material in suspension and apply with properly calibrated spray equipment. Apply until leaves glisten, but not to point of runoff.

# Application concentration:

Use labeled rate per 100 gallons of water for the prevention and control of outlined diseases.

**T-Bird 4.5L maximum application rates:** The maximum single application rate for ornamental foliar applications (excluding cut flowers) is 85.3 fl. oz. of product per acre.

Maximum application rate for ornamental foliar application to ornamentals per crop cycle is 300 pounds, or 66.7 gallons, per acre.

The maximum single application rate for application to cut flowers is 14.2 fl. oz. of product per acre.

DISEASE(S)	RATE OF T-BIRD 4.5L (fl. oz./100 gallons)	APPLICATION INSTRUCTIONS
Anthracnose Collectotrichum	10.75-20.00 fl. oz.	Apply at bud break or at first sight of disease. Reapply at 7-14 day intervals or as needed during disease period.
Black spot Diplocarpon rosae	10.75- 20.00 fl. oz.	Apply in early summer or at first sight of disease. Reapply at 7-14 day intervals or as needed during disease period.
Brown Rot and Blight Monilinia Sclerotinia Whetzellinia	10.75 – 20.0 fl. oz.	Apply in late spring or at first sight of disease. Reapply at 7-14 day intervals or as needed during disease period.
Fusicladium and Venturia Leaf Scabs on: Crabapple, hawthorn, Pear, Mountain Ash, Pyracantha	10.75-20.00 fl. oz.	Apply at bud break. Reapply at 7-14 day intervals or as needed during the disease period.  Adequate disease control requires thorough coverage during leaf expansion. Use in rotation with chlorothalonil or propiconazole products.
Blight and Leaf spots: Ascochyta Blight Blumeriella Botrytis Cercospora Coccomyces Corynespora Curvularia Didymellina Diplodea Tip Blight Diplodea piea Entomosporium Fabraea Fusarium Marssoninia Mycosphaerella Myrothecium Phomopsis Blight Physalaspora Ramularia Rhizoctonia Schizothyrium Sphaceloma Septoria	10.75-20.00 fl. oz. (10.00-14.50 fl. oz., California only)	Apply when disease symptoms first appear. Reapply at 7-14 day intervals.
Ovulinia Blight	7.25 – 20.00 fl. oz.	Apply as flowers open. Reapply at 7-14 day intervals during disease

DISEASE(S)	RATE OF T-BIRD	APPLICATION INSTRUCTIONS
	4.5L	
	(fl. oz./100 gallons)	
		period.
Powdery Mildews Erysiphe Microsphaera Phyllactinia Podosphaera Oidium Sphaerotheca	10.00-20.00 fl. oz.	Apply at first sight of disease and reapply at 7-14 day intervals during the disease period. Alternate with other registered fungicide products.
Rust diseases caused by: Puccinia Gymnosporangium Uromyces	10.75-20.00 fl. oz.	Apply in late spring or at the first sight of disease symptoms. Reapply at 7-14 day intervals. Alternate with other registered fungicide products.
Tip Blight of Pine Sphaeropsis sapinea Diplodia pinea	14.50-20.00 fl. oz.	Apply in the spring when new growth begins. Apply a second application before needle emergence from the sheath. Apply a third application 7 days later. Thorough coverage is required.
Twig Blights, Cankers, and Diebacks Diaporthe Kabatina Phoma Phomopsis	14.50-20.00 fl. oz.	Apply at first sight of disease symptoms. Reapply at 7-14 day intervals during disease period.

# **DRENCH APPLICATIONS**

**Soil Diseases Controlled:** Botyrtis, Clyindrocladium rot, Fusarium, Gliocladium, Myrothecium, Penicillium, Ramularia, Rhizoctonia, Sclerotinia stem, crown and roots, and Thielaviopsis rot.

T-Bird 4.5L does not control Cylindrocladium spathiphylli, Pythium spp. or Phytophthora spp.

**Plant types:** Containerized Woody shrubs, trees, herbaceous bedding, flowering, and tropical foliage, and bedding/flowering landscape plants.

**Mixing instructions:** Add required amount of T-Bird 4.5L to partially filled tank agitated by mechanical or hydraulic means and then add remaining required amount of water. Maintain continuous agitation to keep the material in suspension.

Application Rates and Timing for Disease Control: Use 7.5 to 20 fluid ounces of T-Bird 4.5L per 100 gallons of water. Apply as a drench or heavy spray ( $\frac{1}{2}$  to 2 pints per square foot in 100 gallons per 400 - 1,600 sq. ft. Apply 1 pint per square foot for small pots and shallow flats, up to 4 inches in size. For containers and pots that are 4 inches or larger, follow the table before for the application volume. Repeat at 4 - 8 week intervals during periods favorable for disease.

Container Size (inches)	Spray Mixture Volume to apply to each container	
	1 pt/sq. ft rate	2 pt/sq. ft rate
4 inch	2.0 fl oz	
5 inch	2.5 fl oz	
6 inch		6.5 fl oz
7 inch		8.5 fl oz
8 inch		11.0 fl oz
9 inch		14.0 fl oz
10 inch		17.5 fl oz

For containers that are larger than 10 inches, apply in a drench volume of 2.5 - 3.0 pints per square foot surface area.

#### PLANT DIP TREATMENT

**Diseases controlled:** Botrytis, Cylindrocladium Fusarium, Gliocladium, Myrothecium, Penicilium, Ramularia, Rhizoctonia, Sclerotinia, Theilaviopsis.

**Plant types:** Plants, cuttings, can sections of woody herbaceious, flowering and tropical foliage plants. Bulbs, corms, tubers, and rhizomes of plants such as Caladium, Eater Lily, Tulip, Gladiolus, Daffodil, Iris.

**Mixing instructions:** Add required amount of T-Bird 4.5L to partially filled tank agitated by mechanical or hydraulic means and then add remaining required amount of water. Maintain continuous agitation to keep the material in suspension.

## **Application Rates and Timing for Disease Control:**

Plants or Cuttings - Use 14.5 - 21.5 fl. oz. of T-Bird 4.5L per 100 gallons of water, immerse plants or cuttings for 10 to 15 minutes; remove and allow to drain. Wear protective clothing as described under the **PERSONAL PROTECTIVE EQUIPMENT** section of this label.

Bulbs, Corms, Tubers, and Rhizomes - Use 14.5 - 33.0 fl. oz. of T-Bird 4.5L per 100 gallons of water, or 2 teaspoonfuls of T-Bird 4.5L per gallon of water. Soak cleaned bulbs for 15 to 30 minutes in warm dip (80° to 85°F) preferably within 48 hours after digging. Dry bulbs after treatment. If bulbs are for forcing, treat bulbs that have been heat-cured.

#### CHEMIGATION INSTRUCTIONS - FOR ORNAMENTAL USE ONLY

Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have any questions about calibrations, you should contact State Extension Service specialists, equipment manufacturers or other experts.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Do not connect chemigation system to any public water system. Public water system means a system for the provision of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

# SYSTEM REQUIREMENTS

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements.

- The system must contain a functional check, valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoidoperated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

# INSTRUCTIONS FOR SPRINKLER (OVERHEAD) IRRIGATION:

- Observe the requirements in the System Requirements section above.
- Do not apply when wind speed favors drift beyond the area intended for treatment.
- Maintain a gently continuous agitation in mix tank during mixing and application to assure a uniform suspension.
- Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time.
- Application of more than recommended quantities of irrigation water per acre may result in decreased product performance. Do not apply when wind speed favors drift, when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product cannot be flushed and must be dismantled and drained. In a center pivot system, block the nozzle set nearest the well/pivot/injection unit to prevent spray being applied to this area.
- When sprinkler distribution patterns do no overlap sufficiently, unacceptable disease control may result.

- Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water.
- T-Bird 4.5L may be applied in conjunction with chemically neutral liquid fertilizers.
   Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, may cause a degradation of the pesticide, resulting in reduced performance and should be avoided.
- Check local restrictions and requirements regarding sprinkler irrigation applications, as they may vary from state to state.

#### SPRAY PREPARATION

Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

Prepare a suspension of T-Bird 4.5L in a mix tank. Fill the tank with ½ or ¾ the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of T-Bird 4.5L and then the remaining volume of water.

#### APPLICATION INSTRUCTIONS

Set sprinkler system to deliver 0.1 to 1.25 inches of water per acre. Volumes of water higher than this may reduce efficacy. Start sprinkler and then uniformly inject the suspension of T-Bird 4.5L into the irrigation water line so as to deliver the desired rate per acre. The suspension of T-Bird 4.5L should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing.

NOTE: When treatment with T-Bird 4.5L has been completed, do not irrigate the treated area for 24 to 48 hours to prevent washing the chemical off the crop.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

**PESTICIDE STORAGE:** Store in the original container in a dry area. Do not store in a manner where cross-contamination with other pesticides, fertilizers, food or feed could occur. If spilled during storage or handling sweep up spillage and dispose of in accordance with the Pesticide Disposal Instructions listed below.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

# IMPORTANT INFORMATION READ BEFORE USING PRODUCT CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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